12

catch members to a position outwardly of said passageway upon movement of a drill rod section through said passageway,

(d) a sloping cam surface on said catch members in position to be engaged by said transverse member upon inward movement of said transverse member whereby said catch members are moved by said transverse member to said outer position, and

(e) resilient means urging said transverse member inwardly between said catch members upon removal of a drill rod section from said passageway.

- 8. The combination as defined in claim 5 in which said support member is carried by a vertical shaft-like member mounted for rotation about said axis, and power actuated means is operatively connected to said shaft-like member for rotating said drill rod rack to selected angular positions to position said drill rod sections sequentially in axial alignment with said driven head.
- 9. The combination as defined in claim 5 in which 20 angularly spaced locking elements are provided in said support member in position to engage a stationary cooperating locking element whereby said drill rod rack is retained in a locked position each time a drill rod section is positioned sequentially in axial alignment with 25 said driven head.
- 10. The combination as defined in claim 9 in which said locking elements are angularly spaced locking recesses in the under surface of said support member and said stationary cooperating locking element is a plung-30 er-like member carried by a power actuated unit which moves said plunger-like member into a recess each time a drill rod section is moved into axial alignment with said driven head.
- 11. The combination as defined in claim 8 in which ³⁵ the upper end of said vertical shaft-like member is rotatably connected to the lower end of a column which is fixedly secured to said elongated frame.
- 12. The combination as defined in claim 8 in which radially extending arms are carried by the upper portion of said vertical shaft-like member in angularly spaced relation to each other and drill rod section retainer members are carried by the outer ends of said arms in position to receive upper portions of the drill rod sections carried by said drill rod rack.
- 13. The combination as defined in claim 12 in which each said drill rod section retainer member comprises a generally U-shaped outwardly opening recess for receiving a drill rod section and a releasable latch element is mounted adjacent at least one side of said recess for holding a drill rod section within said recess.
- 14. The combination as defined in claim 12 in which each of said radially extending arms is pivotally connected to said vertical shaft-like member and is movable 55 selectively to a generally horizontal position and a depending vertical position alongside said vertical shaft-like member, and actuator means moves the radially extending arm in axial alignment with said driven head downwardly to said depending vertical position upon 60 downward movement of said transmission unit and returns said radially extending arm in axial alignment

with said driven head to said horizontal position upon upward movement of said transmission unit.

- 15. The combination as defined in claim 14 in which said actuator means comprises:
 - (a) an actuator element carried by said transmission unit in position to engage said radially extending arm in axial alignment with said driven head and move the same down upon downward movement of said transmission unit,
 - (b) a rod mounted for vertical movement within an axially extending passageway in said vertical shaftlike member,
 - (c) an inwardly projecting detent carried by the inner end of each said radially extending arm and positioned adjacent said rod,
 - (d) a recess and detent carried by said rod facing and receiving the inwardly projecting detent of the radially extending arm that engages the drill rod section in axial alignment with said driven head so that upon downward pivotal movement of the radially extending arm that engages the drill rod section in axial alignment with said driven head said detent on said arm engages said recess and detent carried by said rod and lifts said rod, and
 - (e) a movable element supported adjacent the upper end of said rod and operatively connected to said rod so that upon upward movement of said rod said movable element moves in one direction into the path of movement of said transmission unit and upon movement of said movable element in the opposite direction in response to upward movement of said transmission unit said detent carried by said rod is moved downward and engages the detent carried by said radially extending arm in axial alignment with the driven head to thus move said radially extending arm to its horizontal position.
- 16. The combination as defined in claim 8 in which angularly spaced retainer members are carried by a common support unit with each retainer member being adapted to engage the upper end of a drill rod section and limit lateral movement thereof and power actuated means is operatively connected to said support unit to move said support unit and the retainer members carried thereby selectively to an upper inoperative position and a lower operative position with said retainer members engaging said drill rod sections.
- 17. The combination as defined in claim 16 in which each said retainer member is a depending member of a size and shape to enter the upper end of a drill rod section upon movement of said support unit to said lower operative position.
- 18. The combination as defined in claim 16 in which said support member comprises a plurality of radially extending arms connected at their inner ends to each other with the outer ends of said arms being connected to the upper ends of said retainer members.
- 19. The combination as defined in claim 18 in which the inner ends of said arms are also connected to a depending guide member which slidably engages a cooperating guide member carried by said drill rod rack.